



**SOUTH DAKOTA BOARD OF REGENTS  
ACADEMIC AFFAIRS FORMS**

**Revised Course Request: Common Course  
(Substantive Modifications)**

<u>SDSU</u> <b>Institution</b>	<u>Yucheng Liu</u> <b>Form Initiator</b>	<u>Suzette Burckhard</u> <b>Dean's Approval Signature</b>	<u>3/12/2025</u> <b>Date</b>
	Jerome J Lohr College of Engineering / Mechanical Engineering		
<u>SDSU</u> <b>Institution</b>	<u>Engineering / Mechanical Engineering</u> <b>Division/Department</b>	<u>Dennis D. Hedge</u> <b>Institutional Approval Signature</b>	<u>3/26/2025</u> <b>Date</b>
<u>SDSMT</u> <b>Institution</b>	<u>Engineering / Mechanical Engineering</u> <b>Division/Department</b>	<u>Pierre Larochelle</u> <b>Institutional Approval Signature</b>	<u>3/5/2025</u> <b>Date</b>

Indicate universities that currently offer the common course:

BHSU     DSU     NSU     SDSMT     SDSU     USD

**Section 1. Existing Course Title and Description**

<b>Prefix &amp; No.</b>	<b>Course Title</b>	<b>Credits</b>
ME 312	Thermodynamics II	3

<b>Course Description</b>
Thermodynamic power cycles using vapors and gases. One-dimensional compressible flow. Energy analysis. Refrigeration cycles. Moistures and psychrometry. Maxwell's relations. Combustion and thermochemistry.

**Section 2. Modification(s) Requested**

**2.1. This modification will include:**

**Pre-Requisites** (ME 211 and ME 221) or (ME 311 and MATH 321) to (MATH 225 and ME 211 and ME 221) or (ME 311 with a C or better and MATH 321)

**Effective term of the change:** Fall 2025

**2.2. Add justification for all changes noted above:**

This request will update the prerequisites for ME 312 which is offered at SDSU and SDSMT. A request to add an earned grade criteria to the prerequisites for the ME 312 is being made to improve student performance in the course. Presently, students who attempt ME 312 with a D grade in ME 311, a prerequisite course -Thermodynamics I, perform poorly in ME 312 resulting in having to repeat ME 312 potentially delaying their progress. The offering sequence for ME 311 and ME 312 is such that students can retake the course in the next semester after receiving a D grade and not delay their degree progress. In addition, SDSMT has requested to update the prerequisite to include MATH 225.

**Section 3. Other Course Information**

**3.1. Will this course equate (i.e., be considered the same course for degree completion) with any other unique or common courses in the common course database?**  Yes     No

**Section 4. Department and Course Codes (Completed by University Academic Affairs)**

<input type="checkbox"/> <b>Change in Banner Department</b>	<u><b>Current</b></u> SDMST: Mechanical Engineering SDSU: Mechanical Engineering	to	<u><b>New</b></u> No change
<input type="checkbox"/> <b>Change in Banner Department Code</b>	MMEC, SMEC	to	No change
<input type="checkbox"/> <b>Change in CIP Code</b>	14.1901	to	No change

**SDSMT Approval:**

From: Larochelle, Pierre M.  
Sent: Wednesday, March 5, 2025 1:49 PM  
To: Liu, Yucheng  
Cc: Hoffelt, Janell; Burckhard, Suzette; Ash, Jason T.  
Subject: RE: [EXT] Course modification to ME 312

Yucheng,

As it turns out, we too want to make a change to ME 312. We want to add MATH 225 as a pre-req. to “our side” of the pre-reqs for this course.

With your approval, we’ll proceed in the way you did with your changes. How did you proceed with your change to ME 312? Did you use a minor course mod. form and process that on your campus, or, did you make a change to the common course and go through the BoR, or, something else?

Thanks and see you soon at MEEEd 2025 in LA.

Pierre

From: Liu, Yucheng  
Sent: Friday, January 31, 2025 11:51 AM  
To: Larochelle, Pierre M.  
Cc: Hoffelt, Janell; Burckhard, Suzette  
Subject: Re: [EXT] Course modification to ME 312

Dear Dr. Larochelle,

Thank you so much for your support! I will proceed with the course modification.

Have a nice weekend and I look forward to seeing you in person at MEEEd in LA!

Sincerely,  
Yucheng

Yucheng Liu, PhD, PE  
Head and Duane Sander Endowed Professor  
ASME Fellow, SAE Fellow  
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P: (605) 688-5426  
SDState.edu

From: Larochelle, Pierre M.  
Sent: Friday, January 31, 2025 12:49 PM  
To: Liu, Yucheng  
Subject: RE: [EXT] Course modification to ME 312

Hello Yucheng,

As you know, ME 312 is a common course that each of our department's teach and require.

Our students do not take ME 311, our pre-reqs for ME 312 are ME 211 and ME 221. Formerly, as listed in Cognos, these are the ME 312 pre-reqs:

(ME 211[D] AND ME 221[D]) OR (ME 311[D] AND MATH 321[D])

If you want to make changes to "your side" of the pre-reqs, i.e. the right side of the "or" in the above, we have no issue with that at all as it doesn't impact our students or our program.

Regards.

Pierre

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From: Liu, Yucheng  
Sent: Thursday, January 30, 2025 12:11 PM  
To: Larochelle, Pierre M.  
Cc: Burckhard, Suzette; Hoffelt, Janell  
Subject: [EXT] Course modification to ME 312

Dear Dr. Larochelle,

I hope the new semester is treating you well. I am reaching out to request your support for a course modification we would like to make on our course ME 312 - Thermo II.

Our program requirements specify that students must earn a "C" or better grade in both courses to be graduate. So it has occurred several times that students who earned a "D" in ME 311 have taken both ME 311 and 312 in the following semester, expecting to get "C" or better grades in both courses. To prevent this situation, we are proposing to change the course requirements by requiring students to earn a minimum of grade of C in ME 311 before enrolling in ME 312. Could you please consider this initiative and let me know if you have any questions or need additional information?

Thank you very much for your support.

Best Regards,  
Yucheng

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